## CLAIMS

- 1. A machine for inspecting a bottle comprising
- 5 a conveyor for supporting a bottle at an inspection location, and

an inspection system for inspecting a bottle at the inspection location including

a camera having an imaging surface on one side of the bottle,

an L.E.D. matrix light source having a plurality of horizontal L.E.D. rows on the other side of the bottle directing light towards said camera, and

a processor

for defining a vertical periodic intensity pattern having intensity peaks and valleys, for a vertical row of L.E.D.s and

for locating the L.E.D of the vertical row that locates the top of a bottle to be inspected at a peak of the periodic intensity pattern.

A machine for inspecting a bottle according to
claim 1, wherein the periodic intensity pattern is a triangulated pattern.